

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-10 (canceled).

Claim 11 (original): A method of inhibiting bacterial infection, said method comprising:

- a) identifying the presence of a bacteria in a mammal; and
- b) administering to said mammal a protein comprising a sequence selected from the group consisting of: i) SEQ ID NO: 1-5, 7-10, and 12-24; ii) a sequence which has 95% identity to a sequence in i); and iii) a peptidomimetic small molecule which mimics the activity of a protein in i); in an amount effective to kill said bacteria.

Claim 12 (original): The method of claim 11, wherein the protein is delivered by a method selected from the group consisting of bacteriophage, an expression vector, or direct administration of protein or a peptidomimetic small molecule.

Claim 13 (original): The method of claim 11, wherein the protein comprises a combination of proteins having sequences selected from the group consisting of SEQ ID NO: 2 and 3; SEQ ID NO: 3 and 4; SEQ ID NO: 2, 3, and 4; SEQ ID NO: 1, 2, 3, and 4; SEQ ID NO: 9 and 10; SEQ ID NO: 14 and 15; SEQ ID NO: 8 and 14; SEQ ID NO: 8 and 15; SEQ ID NO: 8, 14, and 15; SEQ ID NO: 16, 17, and 18; SEQ ID NO: 17 and 18; SEQ ID NO: 16, 17, 18, and 19; SEQ ID NO: 17, 18, and 19; and SEQ ID NO: 20, 21, and 22.

Claim 14 (original): The method of claim 13, wherein the proteins have the sequences of SEQ ID NO: 8, 14, and 15.

Claim 15 (original): The method of claim 11, wherein the protein is fused to a cationic agent, a hydrophobic agent, a signal sequence, a lipid or combinations thereof, and is delivered by a method selected from: inhalation of an aerosolized anti-bacterial peptide; topical application; injection; and oral ingestion.

Claim 16 (canceled).

Claim 17 (new): A method of inhibiting bacterial infection, said method comprising:

- a) generating a bacteriophage vector, said vector comprising an expression construct operably linked to a recombinant bactericidal SPO1 gene;
- b) identifying the presence of a bacteria in a mammal; and
- c) administering the bacteriophage of a) to the mammal of b).

Claim 18 (new): The method of claim 17, wherein said bactericidal SPO1 gene encodes a protein selected from the group consisting of: i) SEQ ID NO: 1-5, 7-10, and 12-24; and ii) a sequence that has 95% identity to a sequence in i).

Claim 19 (new): A method of inhibiting bacterial infection, said method comprising:

- a) identifying the presence of a bacteria in a mammal; and
- b) administering to said mammal a pharmaceutical comprising a composition selected from the group consisting of a bactericidal SPO1 protein and a peptidomimetic which mimics a bactericidal SPO1 protein.

Claim 20 (new): The method of claim 19, wherein said bactericidal SPO1 protein comprises a sequence selected from the group consisting of: i) SEQ ID NO: 1-5, 7-10, and 12-24; and ii) a sequence which has 95% identity to a sequence in i).

Claim 21 (new): The method of claim 19, wherein said peptidomimetic mimics a protein selected from the group consisting of: i) SEQ ID NO: 1-5, 7-10, and 12-24; and ii) a sequence that has 95% identity to a sequence in i).